

CLAIMS

What is claimed is:

1. A spacer configured to mount a fan housing to a surface of a structural support,
the spacer comprising:
 - 5 a body;
 - a first aperture passing through the body, the first aperture having a first length
through the body; and
 - a second aperture passing through the body, the second aperture having a
second length through the body, the second length different than the first length;
 - 10 wherein the body has a first orientation with respect to the fan housing and
structural support in which the body separates the fan housing from the surface of the
structural support by the first length when installed with a fastener passed through the first
aperture and into the structural support; and
 - wherein the body has a second orientation with respect to the fan housing and
15 structural support in which the body separates the fan housing from the surface of the
structural support by the second length when installed with a fastener passed through the
second aperture and into the structural support.
2. The spacer of claim 1, further comprising a third aperture passing through the
20 body, the third aperture having a third length through the body, and wherein the body has a
third orientation with respect to the fan housing and structural support in which the body
separates the fan housing from the structural support by the third length different than the first
and second lengths when installed with a fastener passed through the third aperture and into
the structural support.
- 25 3. The spacer of claim 1, wherein an end of the first aperture is tapered for
guiding a fastener into the first aperture.
4. The spacer of claim 1, wherein the body is injection molded, and the first and
30 second apertures are formed during molding of the body.

5. The spacer of claim 1, wherein the body includes an outwardly extending protrusion for orienting the spacer with respect to the fan housing in at least one of the first and second orientations.

5 6. The spacer of claim 1, wherein the first aperture and second apertures lie in planes that are substantially perpendicular to one another.

7. The spacer of claim 1, wherein the body includes:
a first mounting surface engageable with the housing when the body is in the
10 first orientation; and
a second mounting surface engageable with the housing when the body is in the second orientation, the first mounting surface being substantially perpendicular to the second mounting surface.

15 8. The spacer of claim 7, further comprising a lip extending outwardly from the body, the lip preventing orientation of the spacer in a third orientation in which the first mounting surface is flush with the surface of the structural support.

9. The spacer of claim 8, wherein the lip prevents orientation of the spacer in a
20 fourth orientation in which the second mounting surface is flush with the surface of the structural support.

10. A spacer configured to mount a fan housing to a web portion of a structural support, the spacer comprising:

5 a body defining a first aperture and a second aperture extending in different directions through the body, the body positionable in a first orientation between the web portion and the housing to mount the fan housing on the structural support, and positionable in a second orientation between the web portion and the fan housing to mount the fan housing on the structural support, the body including

10 a first mounting surface engageable with the fan housing when the body is in the first orientation, the first aperture extending through the first mounting surface and dimensioned to receive a fastener to connect the fan housing in spaced relationship to the web when the body is in the first orientation; and

15 a second mounting surface engageable with the fan housing when the body is in the second orientation, the second aperture extending through the second mounting surface and dimensioned to receive a fastener to connect the fan housing in spaced relationship to the web when the body is in the second orientation;

wherein the fan housing is spaced a first distance from the web in the first orientation of the body, and a second distance from the web in the second orientation of the body, the second distance different than the first distance.

20 11. The spacer of claim 10, further comprising a third aperture extending in a direction through the body different than the directions of the first and second apertures, wherein the body is positionable in a third orientation between the web portion and the housing to mount the fan housing on the structural support, the body including a third mounting surface engageable with the fan housing when the body is in the third orientation, 25 the third aperture extending through the third mounting surface and dimensioned to receive a fastener to connect the fan housing in spaced relationship to the web when the body is in the third orientation.

30 12. The spacer of claim 10, wherein an end of the first aperture is tapered for guiding a fastener into the first aperture.

13. The spacer of claim 10, wherein the body is injection molded, and the first and second apertures are formed during molding of the body.

5 14. The spacer of claim 10, wherein the body includes an outwardly extending protrusion for orienting the spacer with respect to the fan housing in at least one of the first and second orientations.

10 15. The spacer of claim 10, wherein the first aperture and second apertures lie in planes that are substantially perpendicular to one another.

16. The spacer of claim 10, further comprising a lip extending outwardly from the body, the lip preventing mounting of the spacer in an orientation in which the first mounting surface is flush with the web.

15 17. The spacer of claim 16, further comprising a second lip extending outwardly from the second mounting surface, the second lip preventing mounting of the spacer in an orientation in which the second mounting surface is flush with the web.

18. A spacer for mounting a fan housing in positions spaced from a mounting surface of a structural support, the spacer comprising:

a body having a first dimension in a first orientation and a second dimension in a second orientation different than the first orientation;

5 a first aperture defined in the body and shaped to receive a fastener through the body;

a second aperture defined in the body and shaped to receive a fastener through the body;

the spacer having

10 a first mounting orientation with respect to the fan housing and structural support in which the spacer separates the fan housing from the mounting surface of the structural support by a distance substantially the same as the first dimension; and

a second mounting orientation with respect to the fan housing and structural support in which the spacer separates the fan housing from the mounting surface of the structural support by a second distance substantially the same as the second dimension, wherein the second distance is different than the first distance.

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19. A method of mounting a fan housing in spaced relationship to a mounting surface of a structural support, the method comprising:

- determining a desired space between the mounting surface and the fan housing;
- selecting one of a first mounting orientation of a spacer with respect to the mounting surface and the fan housing and a second mounting orientation of the spacer with respect to the mounting surface and the fan housing based at least in part upon the desired space, the spacer having a first aperture through which a fastener is passed to mount the spacer to the mounting surface in the first mounting orientation, and a second aperture through which a fastener is passed to mount the spacer to the mounting surface in the second mounting orientation, the spacer separating the fan housing from the mounting surface a first distance in the first orientation and a different second distance in the second orientation;
- orienting the spacer in the selected mounting orientation;
- inserting a fastener through one of the first and second apertures corresponding to the selected mounting orientation; and
- inserting the fastener into the mounting surface to secure the housing in spaced relationship with respect to the mounting surface.

20. The method of claim 19, wherein the body includes a lip, the method further comprising aligning the lip with a feature of the housing.

21. A fan and spacer assembly adapted for mounting to a structural support, the fan and spacer assembly comprising:

a fan assembly comprising

a housing;

5 a fan located within the housing and rotatable to generate airflow into the housing and out of an exhaust outlet of the housing; and

a spacer comprising:

a body;

10 a first aperture passing through the body, the first aperture having a first length through the body; and

a second aperture passing through the body, the second aperture having a second length through the body, the second length different than the first length;

15 wherein the body has a first orientation with respect to the fan housing and structural support in which the body separates the fan housing from the surface of the structural support by the first length when installed with a fastener passed through the first aperture and into the structural support; and

20 wherein the body has a second orientation with respect to the fan housing and structural support in which the body separates the fan housing from the surface of the structural support by the second length when installed with a fastener passed through the second aperture and into the structural support.